SESSION # 3

BASELINE DATABASE PEDIGREE FOR CONSTRUCTIVE ANALYSIS

ISSUES
- Does Pedigreed Database add value for application beyond Joint Strike Fighter (JSF) and Joint Air-to-Surface Standoff Missile (JASSM)?

BACKGROUND
- In early 1994, the Joint Advanced Strike Technology (JAST) Program (now JSF) Director identified need for common set of analytical models and tools
  - -- JAST agreed to fund initial activity and ASC/XRE was tasked to lead joint effort
  - -- Pedigreed Version 1 published Aug 95, Version 2 Feb 96, Version 3 planned late 96
  - -- Toolset then used early FY96 as foundation for JASSM COEA
- National Security Industrial Association (NSIA) M&S Subgroup briefed 24 Jul 96
  - -- Plan to explore Pedigreed Database for use across industry
- AF/XOM briefed 2 Aug 96
  - -- Great success story to be considered as possible standard for near term M&S roadmap

DISCUSSION
- Definition of "Pedigreed": Data that is documented, of known origin, based on analytically sound analysis, consistent across various models, and supported through hierarchy of standard legacy models
  - -- Includes data audit trail and defined methodology and processes
  - -- Dynamic in nature, evolves over time
- Objective/Purpose:
  - -- Reuse
  - -- Cost avoidance
  - -- Enable apples-apples studies/comparisons
  - -- Baseline that all government and industry participants could use for acquisition and sustainment type studies and analyses leading to better information for decision-making
  - -- Common foundation for requirements activities leading to ORDs and design tradeoffs leading to affordable systems
  - -- Set of databases, models, and methodology that could be used as part of continuous COEA activity or beyond JSF for other studies, COEAs, and longer range modernization planning
- Key Elements:
  - -- Standard DPG (Defense Planning Guidance) scenarios with DIA approved MSFD (multi-spectral force deployment)
  - -- Joint warfighter community approved concept of operations, tactics, mission profiles, etc.
  - -- JCS approved basing, force structure, deployment, etc.
  - -- Current constructive models from official model managers
    - --- THUNDER, SUPPRESSOR, BRAWLER, ESAMS, RADGUNS, MOSAIC, Etc.
- Key Activities:
  - -- Integrates all levels of analysis pyramid: engineering, engagement, mission, campaign

     -- Developed methodology for data/results to flow between models
     -- Tracks movement of data at all levels
     -- Building pre and post processors, translators, mappers as applicable to facilitate data
       movement between pyramid levels and between models
     -- Ensures formats flexible to allow iterative process and continuous updates over time
     -- Established standard process and consistent formats for documentation
       --- Using Microsoft ACCESS as tracking tool

- Caution: It is not everything for everybody. Still many holes, but it is certainly a place to start.

RECOMMENDATION

- Adopt Pedigreed Database as the analysis baseline
- Develop plan for sustaining funding support--Combination of programs and staff funding
- Develop formal update process and joint users group, to include industry